

IOWA STATE UNIVERSITY

*Office of the Vice President for Research and Economic Development
Office of the Vice President for Extension and Outreach*

The University's Role in Economic Development

David Oliver

**Vice President for Research
and Economic Development
Joint Economic Development
Appropriations Subcommittee**

February 20, 2013



ISU's Main Products

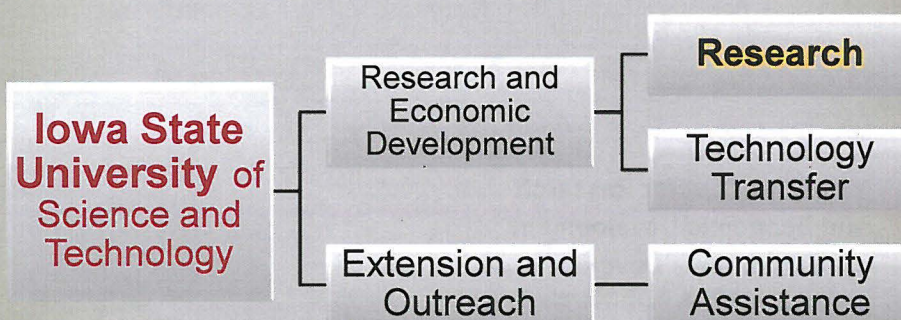
1. Today's Workforce
2. Tomorrow's Workforce
 - Record overall enrollment
 - Record enrollment in Engineering
 - Record enrollment in Agriculture

**Iowa State produces more of Iowa's workforce
than any other educational institution**

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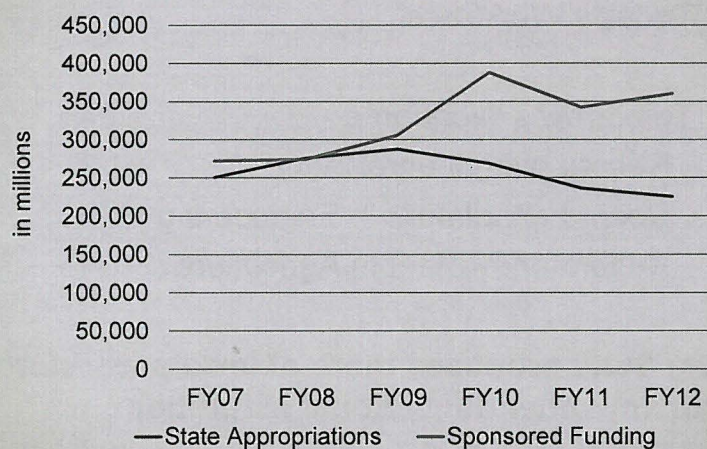
Strengthening Iowa's Economy



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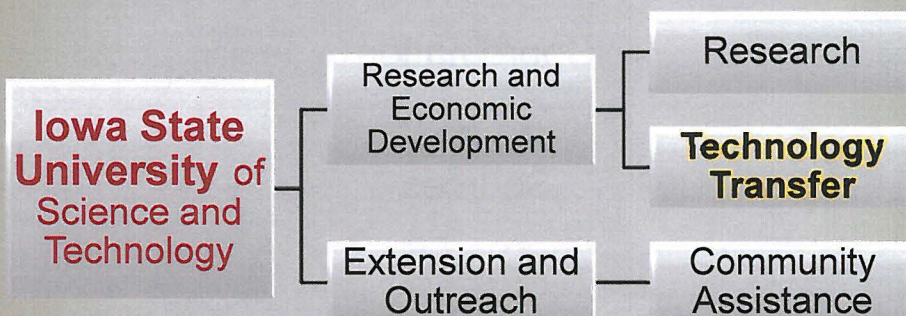
Funding Leverage



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Strengthening Iowa's Economy



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Federal Programs

- **i6** - with IEDA \$1,000,000 (\$450,000 to ISU). This 2 year program provides research funding for Proof of Concept and Proof of Relevance for 'green' technologies. ISU has awarded
 - 5 phase I proof of concept projects
 - 2 phase II proof of concept projects
 - This funding is part of our Proof of Concept Initiative (POCI) and are reviewed and awarded similar to our Regents Innovation Fund
- **FAST** (Federal and State Technology) - \$80,000. This grant provides support for state outreach programs to SBIR/STTR companies, to increase our number of successful applications. The area of emphasis is women and minority-owned small businesses.

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Proof of Concept Initiative (POCI)

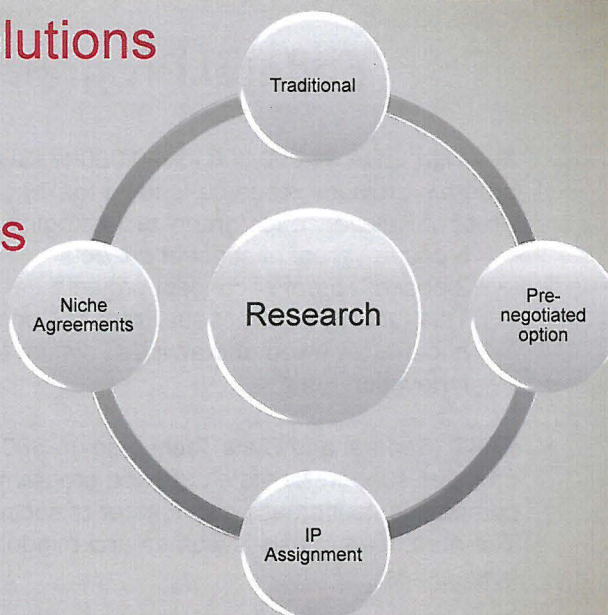


Purpose	<ul style="list-style-type: none"> • Accelerate commercialization • Streamline application and review • Consolidate resources for greater impact
Coordination	<ul style="list-style-type: none"> • ISURF/OIPTT • Research Park • Pappajohn Center
Funding Sources	<ul style="list-style-type: none"> • RIF/GIVF • I6 • IPRT CA Contract Research • ISURF Tech Funds • PSI
Projects	<ul style="list-style-type: none"> • Funded 25 projects across all funding sources • Outcomes measured 1 year after project completion

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Flexible Solutions For Research Agreements



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Economic Development Technology Transfer GIVF/RIF

5 year outcomes

- Reported impact of \$45,514,000 by 39 companies
- Leveraged to receive \$13,524,000 in external funds

GIVF/RIF



- Provided initial funding for 18 startups
- Resulted in 248 publications
- 17 invention disclosures received

Outcomes



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Economic Development Funded Projects (GIVF/RIF and i6)

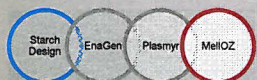
Companies started with GIVF/RIF/i6 research funds



Other Start-up companies with GIVF/RIF/i6 projects



Start-ups that were started and/or assisted by GIVF/RIF/i6 but failed or are suspended pending investment



- \$8.0M in research funding (~\$1M in still-active research projects)
- More than 50 companies have participated, including 29 start-ups
- 18 companies formed in 7 years
- ● Licensed (or in process) or company proposed : ISURF Intellectual Property (underlined are generating licensing revenue)
- ● Based on ISU Research

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IPAT (Iowa Powder Atomization Technology)

Andy Heidloff
Joel Rieken
Founders

IPAT Corporation was recently formed to commercialize ISU technology for powder metallurgy. IPAT couples a proprietary pouring technology with gas atomization to dramatically increase the yield of the best types of powder. The benefit is higher quality parts and greater availability of powder, allowing a switch from stainless steel to titanium, especially in medical and aerospace fields.

IPAT is a winner of the Department of Energy's Next Top Energy Innovator Award and the 2012 John Pappajohn Iowa Business Plan Competition.

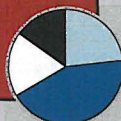
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Economic Development Technology Transfer Five Year Outcomes

- **Average Annual Impact: \$9.9M**
- Programs in 55 Iowa counties
- Over 100 new or retained jobs
- \$32M financial impact
- Over 400 projects with 210 companies in 94 cities

IPRT



□ Increased sales ■ Retained sales □ Cost savings ■ Investment

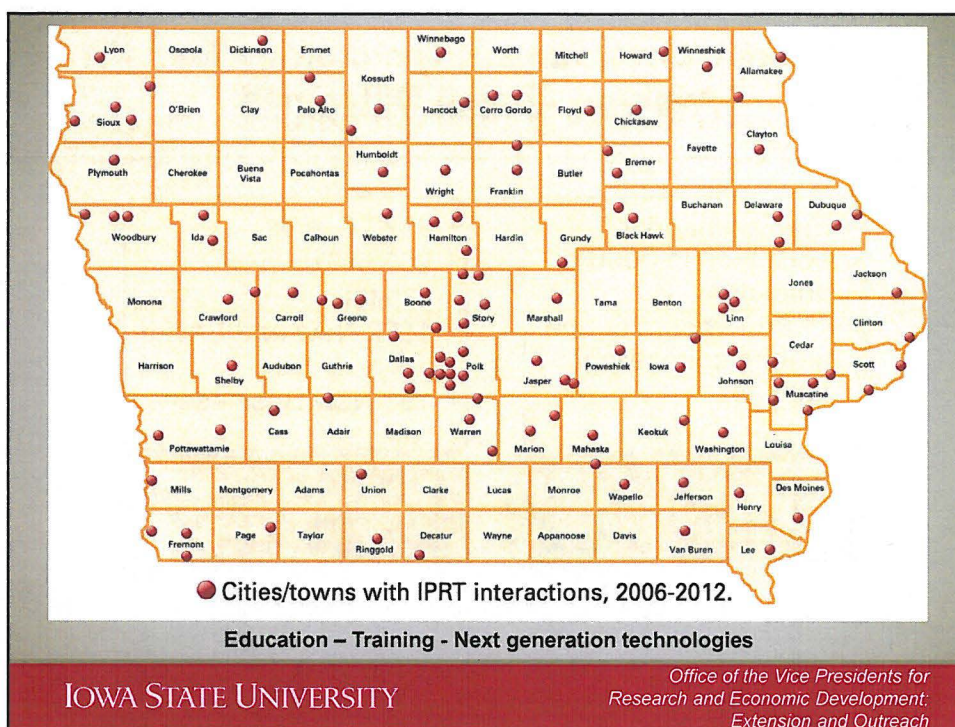
- **MEP Survey of 22 projects showed a \$19.4M impact**
- IPRT has been involved in 30 startup companies over the past ten years.
- Center support for major Iowa employers – CNDE and VRAC with Deere

Outcomes



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Quatro Composites



Brian Wiegert
Responsible
Level III

With corporate headquarters and manufacturing in Orange City, Iowa, Quatro Composites offers design, analysis, prototyping and production of advanced composite products for the aerospace, defense and medical markets.

IPRT's NDE Group worked with Quatro to identify and implement inspection protocols that would allow them to meet industry standards for nondestructive inspection of critical aerospace components.

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Economic Development Technology Transfer Average Annual Outcomes

- Entrepreneurial education to 5000+ annually
- 11,000+ hours of one-on-one counseling annually

SBDC



- 2528 Clients
- \$55 million new capital
- 1562 New and Saved Jobs
- 151 New Businesses

Outcomes



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Federal Programs

The Iowa SBDC attracted \$1,020,451 of U.S Small Business Administration funding for federal FY2013. (Will be reduced to approximately \$938,000 if federal sequestration legislation activates.)

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CQM Systems



Chuck Dirks
Founder and President

CQM Systems utilizes an innovative technology that provides chemical-free water treatment and perpetual condenser tube cleaning for use in refineries, power plants, and building cooling systems that saves water, reduces maintenance, and extends the life of condenser equipment.

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